

AMENDMENTS TO THE CLAIMS

1. (currently amended) A method ~~of comprising~~ metering discontinuously at least one solid, particulate catalyst and/or process auxiliary into a reactor (5) containing a fluidized bed (11) of particles in an at least partly gaseous medium, ~~in which the at least one solid, particulate catalyst and/or process auxiliary is metered discontinuously~~ at prescribed time intervals into the fluidized bed (11) at at least one metering point (10), wherein a first fluid stream is in each case introduced into the reactor (5) so that a region having a reduced particle density is formed in the fluidized bed (11) around the at least one metering point ~~or points~~ (10) and the at least one solid, particulate catalyst ~~or catalysts~~ and/or process auxiliary ~~or auxiliaries~~ ~~is/are~~ subsequently metered into ~~this~~ the region having a reduced particle density.
2. (currently amended) ~~A~~The method as claimed in claim 1, wherein the first fluid stream is a gas stream.
3. (currently amended) ~~A~~The method as claimed in claim 1, wherein the first fluid stream is a liquid stream ~~and the liquid that~~ vaporizes under the conditions prevailing in the reactor (5).
4. (currently amended) ~~A~~The method as claimed in ~~any of the preceding claims~~claim 1, wherein the region having a reduced particle density has a particle density of less than 0.1 g/cm³, ~~in particular less than 0.01 g/cm³~~.
5. (currently amended) ~~A~~The method as claimed in claim 4, wherein the region having a reduced particle density is substantially free of particles.
6. (currently amended) ~~A~~The method as claimed in ~~any of the preceding claims~~claim 1, wherein the first fluid stream is introduced discontinuously for a period of from 0.5 to 60 s and the catalyst is metered in after a delay of from 0.5 to 3 s after commencement of the introduction of the first fluid stream.

7. (currently amended) ~~A~~The method as claimed in ~~any of claims 1 to 5~~claim 1, wherein the first fluid stream is introduced continuously.
8. (currently amended) ~~A~~The method as claimed in ~~any of the preceding claims~~claim 1, wherein the at least one solid, particulate catalyst is a free-flowing catalyst suitable for the polymerization of α -olefins ~~is used~~.
9. (currently amended) ~~A~~The method as claimed in ~~any of the preceding claims~~claim 1, wherein the first fluid stream is formed by ~~one or more~~at least one inert ~~gases~~gas ~~selected~~ from the group consisting of C₂-C₃-alkanes and N₂.
10. (currently amended) ~~A~~The method as claimed in ~~any of the preceding claims~~claim 1, wherein the catalyst is introduced at a distance (x) of at least 1 cm from ~~the~~an interior wall (9) of the reactor (5).
11. (currently amended) ~~A~~The method as claimed in ~~any of the preceding claims~~claim 1, wherein the catalyst is introduced into the reactor (5) by means of the first fluid stream.
12. (currently amended) ~~A~~The method as claimed in ~~any of claims 1 to 10~~claim 1, wherein the first fluid stream is introduced into the reactor (5) essentially concentrically around the at least one metering point (10) for the catalyst and the catalyst is introduced at the at least one metering point (10) with the aid of a ~~further~~second fluid stream.
13. (currently amended) ~~A~~The method as claimed in claim 12, wherein the first fluid stream is introduced at a distance (y) of at least 1 cm from the interior wall (9) of the reactor (5).
14. (currently amended) A continuous polymerization process for preparing ethylene and propylene homopolymers and copolymers, ~~in which~~ comprising polymerizing ethylene, propene or mixtures comprising ethylene or propene and other C₂-C₈- α -olefins ~~are polymerized~~ at from 30 to 150°C and a pressure of from 0.5 to 6 MPa in the presence of ~~[[a]]~~at least one solid, particulate catalyst in a gas-phase fluidized-bed reactor (5) containing a fluidized bed (11) of finely divided polymer, wherein a method for metering

the at least one solid, particulate catalyst and/or process auxiliary as claimed in any of the preceding claims into the reactor (5) containing the fluidized bed (11) of particles in an at least partly gaseous medium is employed, the method comprising metering discontinuously the at least one solid, particulate catalyst and/or process auxiliary at prescribed time intervals into the fluidized bed (11) at at least one metering point (10), wherein a first fluid stream is in each case introduced into the reactor (5) so that a region having a reduced particle density is formed in the fluidized bed (11) around the at least one metering point (10) and the at least one solid, particulate catalyst and/or process auxiliary or auxiliaries are subsequently metered into the region having a reduced particle density.

15. (currently amended) An apparatus for carrying out thea method as claimed in any of claims 10 to 13, of metering at least one solid particulate catalyst and/or process auxillary, the apparatus comprising:

- [[[-]](i) a gas-phase fluidized-bed reactor (5) containing a fluidized bed (11) of particles in a reactor gas, where the reactor (5) has a wall (9) which is arranged essentially parallel to the flow direction of the reactor gas and bounds the fluidized bed;bed;
- [[[-]](ii) at least one reservoir unit (1a) for storing the at least one solid, particulate catalyst and/or process auxiliary;auxiliary;
- [[[-]](iii) a portioning unit (1b) for providing portions of the at least one solid, particulate catalyst and/or process auxiliary in a prescribed amount, which is connected to the at least one reservoir unit or units (1a) by a first connecting line (7a);(7a);
- [[[-]](iv) a valve unit (1c) for introducing the portions of the at least one solid, particulate catalyst and/or process auxiliary into the fluidized bed of the reactor (5) at at least one first metering point (10), where the valve unit (1c) is connected to the portioning unit (1b) by a second connecting line (7b) and is connected to the reactor (5) at the at least one first metering point or points (10),

[[[-]](v) a fluid feed line (8a, 8b) through which a fluid, ~~in particular an inert gas~~, can be ~~feedfed~~ to the reservoir unit (1a) and the second connecting line (7b);

wherein the at least one first metering point ~~or points~~ (10) ~~is/are~~is at a distance of at least 1 cm from the wall (9) of the reactor (5).

16. (currently amended) ~~An~~The apparatus as claimed in claim 15, wherein the at least one first metering point (10) is at a distance of from 2 to 100 cm from the wall (9) of the reactor (5).
17. (currently amended) ~~An~~The apparatus as claimed in claim 15 ~~or 16~~, wherein at least one furthersecond metering point (12) for a fluid stream is provided essentially in the form of an annulus around the at least one first metering point (10) for the solid, particulate catalyst and/or process auxiliary.
18. (new) The method as claimed in claim 4, wherein the region having the reduced particle density has a particle density less than 0.01 g/cm³.
19. (new) The apparatus of claim 15, wherein the fluid fed through the feed line (8a, 8b) is an inert gas.